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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,106

02/03/2005

Hiroshi Dairiki

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EXAMINER

SULLIVAN, DANIELLE D

ART UNIT

PAPER NUMBER

1616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,106	<b>Applicant(s)</b> DAIRIKI ET AL.	
	<b>Examiner</b> DANIELLE SULLIVAN	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1-5 are pending examination.

### ***Withdrawn rejections***

Applicant's amendments and arguments filed 12/18/2008 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: “wherein the sulfate or phosphate salt of a polyoxyethylene” needs to be replaced with “wherein the sulfate or phosphate salt of the polyoxyethylene” because the polyoxyethylene was previously recited in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites “an amount of 1 to 15% by weight” and “an amount of 0.01 to 15% by weight”. It is unclear what the weight is relative to. Is it relative to the total

composition, the lignosulfonate, the polyoxyalkylene or relative to the pesticide? For the purpose of examination the weight is assumed to be relative to the total composition.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bramati et al. (US 5,981,433).

Bramati et al. disclose and exemplary dispersing agent for plant protection agrochemicals such as pesticidal dispersible granules, comprising (a) a lignosulfonate admixed with (b) sulfated triphenyl phenols (abstract). Preferably, a combination of REAX 88B or Polyfon O (3.8 sulfonation) and a tristyrylethoxylated sulfated ammonium salt (Soprophor 4D384) is anticipated (column 3, lines 10-17).

Bramati et al. disclose the dispersing agent wherein the preferred weight ratio of lignosulfonate (a)/polyoxyalkylene arylphenyl ether (b) is on the order 95/5 to 50/50 (column 2, lines 36-42). The pesticidal formulations comprise 0.01-90% of the plant-protection active agent and 0.1- 20% of the dispersing agent (column 3, lines 30-43). Assuming a composition comprises 10% of the dispersing agent and the ratio of (a) to (b) is 95/5, the formulation comprises 9.5% lignosulfonate and 0.5% polyoxyalkylene arylphenyl ether which anticipates the ranges of (a) 1-15% and (b) 0.01 to 15%.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bramati et al. (US 5,981,433) in view of Nakayama et al. (US 6,774,087).

**Applicant's Invention**

Applicant claims a granulated composition comprising a pesticidal ingredient, a lignosulfonate with a degree of sulfonation of at least 2 and a sulfate or phosphate salt of polyoxyalkylene arylphenyl ether, wherein the sulfate or phosphate salt is selected from polyoxyethylene tristylphenyl ether sulfate salt and polyoxyethylene tristyrylphenyl ether phosphate salt. Claim 2 limits the amount of lignosulfonate surfactant to 1-15% and the salt of the polyoxyalkylene arylphenyl ether to 0.01-15%.

**Determination of the scope and the content of the prior art**

**(MPEP 2141.01)**

The teachings of Bramati et al. are disclosed in above 102(b) rejection.

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Bramati et al. teach the particular species selected from polyoxyethylene tristylphenyl ether sulfate salt, however, polyoxyethylene tristylphenyl ether phosphate salts are not taught. It is for this reason that Nakayama et al. is joined.

Nakayama et al. teaches herbicidal composition comprising sulfate-type and phosphate type surfactants and their salts. The liquid herbicide comprises at least one anionic surfactant selected from sulfate-type surfactants and phosphate-type surfactants (column 2, lines 51-53). The surfactants include polyoxyethylene (mono, di or tri)stylphenyl ether sulfates, polyoxyethylene (mono, di or tri)stylphenyl ethers phosphates and their salts (column 1, lines 51-65; column 2, lines 24-37 and 56-65). Hence there is a teaching of equivalence between the sulfate salt and the phosphate salt in these polyoxyethylene (mono, di or tri)stylphenyl ethers anionic surfactants .

### **Finding of prima facie obviousness**

#### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Bramati et al. and Nakayama et al. to utilize tristylphenyl ethers phosphates and their salts. One would have been motivated to utilize these phosphate surfactants because Nakayama et al. teach that they are anionic surfactants and one of ordinary skill would have been able to substitute polyoxyethylene stylphenylether sulfates with polyoxyethylene stylphenylether phosphates and their salts.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bramati et al. in view of Nakayama et al. and in further view of Suzuki et al. (US 5,980,926).

### **Applicant's Invention**

Applicant claims a granulated composition comprising a pesticidal ingredient, a lignosulfonate with a degree of sulfonation of at least 2 and a sulfate or phosphate salt of polyoxyalkylene arylphenyl ether, wherein the sulfate or phosphate salt is selected from polyoxyethylene tristyrylphenyl ether sulfate salt and polyoxyethylene tristyrylphenyl ether phosphate salt. Claim 3 specifies the active is cyflufenamid. Claim 4 specifies the composition comprises an active selected from triflumizole, etc. Claim 5 specifies the active comprises cyflufenamid and triflumizole.

### **Determination of the scope and the content of the prior art**

#### **(MPEP 2141.01)**

The teachings of Bramati et al. and Nakayama et al. are disclosed in above 103 rejection.

### **Ascertainment of the difference between the prior art and the claims**

#### **(MPEP 2141.02)**

Bramati et al. and Nakayama et al. do not teach the particular pesticides cyflufenamid and triflumizole. It is for this reason that Suzuki et al. is joined.

Suzuki et al. teaches water dispersible granules suitable for preparing the formulations of pesticides with excellent dispersibility (abstract, column 2, lines 10-16).

The pesticidal components preferably include triflumizole (column 2, lines 45-47. Example 1), cyflufenamid (structure of formula [1], column 3, Table 1, No. 1, Example 4) or a combination of the two (column 2, line 39-column 4, line 25). Additionally, the granule is combined at the wet milling process with tristeryl phenyl ether added thereon with polyoxyethylene (column 4, lines 26-34). Also, a dispersion aid, sodium ligonsulfonate was added at the time of wet milling (column 4, lines 35-41).

### **Finding of prima facie obviousness**

#### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Bramati et al., Nakayama et al. and Suzuki et al. to utilize triflumizole and cyflufenamid. One would have been motivated to utilize triflumizole and cyflufenamid because Suzuki et al. teach that they preferably formulated into water dispersible granules and provide excellent dispersibility. One of ordinary skill would have been motivated to formulate the triflumizole and cyflufenamid with the dispersing agent disclosed by Bramati et al. because they are plant-protecting active ingredients which can be substituted in the formulation. Since these actives are known to be formulated as water dispersible granules, one would have been motivated to combined the actives with the dispersing aid in order obtain a highly dispersible granular pesticide.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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